

Claims 1, 2, 6, and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Roe et al. (USP 4,006,289) in view of Kazuya (JP 1-276507).

Claims 3, 7, 11, and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Roe et al. in view of Kazuya and Applicant's disclosure at page 4, lines 7-16.

Claims 4, 5, 8, and 9 are allowed.

Applicant traverses.

Claim Rejections - 35 U.S.C. § 103

In rejecting claims 1, 2, 6, and 10, the grounds of rejection acknowledge that "Roe et al. does not disclose each of the steel wires being covered in a layer of stainless steel" Office Action at page 2. However, the grounds of rejection rely on Kazuya, again, to argue that this reference

discloses a composite steel wire in which a steel core is covered by a layer of stainless steel (4) [and that it] would have been obvious to one skilled in the art to modify the steel wires of Roe et al. by covering each steel wire with a stainless steel layer as taught by Kazuya to further protect the wires since stainless steel is a known highly corrosion-resistant material.

Office Action at page 2 (emphasis added). Applicant respectfully disagrees.

Roe et al. discloses a method of manufacturing an electromechanical cable that includes armoring. While the reference discusses the use of armoring, its only disclosure regarding the composition of the armoring is that it is made from metal or steel. See, e.g., Roe et al. at column 2, lines 56-60, column 5, line 4, column 6, lines 64-65, and claim 11. Clearly absent from the disclosure in Roe et al. is any teaching or suggestion for using composite steel wire having a core

of steel covered in a layer of stainless steel. Indeed, absent from the disclosure is any discussion regarding resistance to corrosion.

As discussed by the Applicant in the previous Amendment of October 15, 2001, Kazuya discloses a grounding cable resistant to lightning that is used for elevated electrical cables. That is, the cable disclosed by Kazuya has the following very specialized three-piece structure:

- a steel core 2;
- an interlayer 3 made from copper, copper alloy, aluminum, or aluminum alloy; and
- a surface layer 4 made from stainless steel.

This structure serves the specialized function of resisting damage from lightning strikes, which is different from the armoring disclosed in newly cited Roe et al. Specifically, the cable disclosed by Kazuya is for carrying electricity, which, as the grounds of rejection assert, is not the case for armoring in Roe et al. See Office Action at page 2, which states that Roe et al. discloses wire (15) that does not carry electricity.

Clearly, therefore, one skilled in the art would not have thought to modify the cable of Roe et al. to replace the steel armoring 15 with a significantly more expensive three layer structure of Kazuya that has the special purpose of protecting a grounding cable from damage due to lightning strikes.

Moreover, there is absolutely no teaching or motivation in the applied art that would motivate one to select only the stainless steel layer of the three layered structure disclosed in Kazuya. Such picking and choosing from a reference finds no basis in the prior art teachings and amounts to improper hindsight reconstruction.

Once again, the grounds of rejection are based on separating out the feature of the stainless steel layer disclosed in Kazuya, while ignoring the disclosed purpose for having this feature: so that the peripheral surface of wires that make up a ground cable have a high melting point with superior resistance to fusing, thereby making the ground cable durable against lightning strikes. The grounds of rejection cannot ignore this very specific application, while relying on hindsight to pick and choose features from the art in a manner that re-constructs Applicant's invention with the benefit of this hindsight. There is simply insufficient disclosure to present a prima facie case of obviousness.

Furthermore, the assertion in the grounds of rejection that stainless steel's highly corrosion-resistant property provides adequate motivation to modify the cable of Roe et al. finds no basis in the prior art. Clearly Roe et al. does not suggest any deficiency in its cable that would necessitate additional protection. Furthermore, Applicant's disclosure notes the use of solid stainless steel wires, galvanized steel wires, or aluminum coated wires that are known to be used to resist corrosion.

The Federal Circuit just recently reminded us that the USPTO is held to a rigorous standard when trying to show that an invention would have been obvious in view of the combination of two or more references. See, In re Sang Su Lee, 2002 U.S. App. LEXIS 855, *10 (Fed. Cir. 2002), citing, e.g., In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.").

The Federal Circuit goes on to emphasize that the “need for specificity pervades this authority.” In re Sang Su Lee at *10-*11 (emphasis added) (citing In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”).

Applicant respectfully submits that the current grounds of rejection do not satisfy the Federal Circuit’s rigorous standard for demonstrating that the claimed invention would have been obvious in view of the combination of Roe et al. and Kazuya for at least the reasons set forth above.

Regarding claims 3, 7, 11, and 12, the grounds of rejection further rely on Applicant’s disclosure at page 4, lines 7-16, and in particular the disclosure of NUOVINOX to argue that it would have been obvious to use this material since it is “commercially available and can be drawn into a wire tube.” Office Action at page 3.

Applicant resubmits that the grounds of rejection cannot be based on Applicant’s own disclosure at page 4, lines 7-16, since Applicant makes no admission that it was known in the art to use NUOVINOX as armoring for cabling as claimed. Indeed, the French article from “L’usine Nouvelle” no. 2609, dated September 18, 1997 (which is submitted herewith with an Information Disclosure Statement), discusses the use of NUOVINOX for applications only in the area of building construction or civil engineering. Specifically, the article notes that the material is used in the form of bars as gratings, railings, and the like for buildings; including reinforcement for concrete, with the advantage of preventing the degradation of concrete due to

the presence of chloride in conventional steel reinforcement. Clearly, these applications do not teach or suggest the use of NUOVINOX in cables.

Furthermore, the rationale that it would have been obvious to use NUOVINOX merely because it is “commercially available and can be drawn into a wire tube,” is simply unworkable for effectively and objectively administering patent rights. In effect, such rationale would knell the death of any claimed structure capable of being made with an alternate material, regardless of whether there is any teaching or suggestion in the prior art to use such material as recited in the claim. Such a technique bypasses established case law requiring a showing of motivation to combine or modify and contravenes the Federal Circuit’s holding that the USPTO is held to a rigorous when trying to show that an invention would have been obvious in view of the combination of two or more references.

Moreover, the rationale set forth in the grounds of rejection is internally inconsistent, since it relies on two disclosures that are at odds with each other. In particular, the grounds of rejection rely on Kazuya for its disclosure of a specialized cable that uses a three layered structured, including a steel core 2, an interlayer 3 made from copper, copper alloy, aluminum, or aluminum alloy, and a surface layer 4 made from stainless steel. Then the grounds of rejection rely on NUOVINOX material drawn into a cable from a tube of stainless steel that is directly in contact with ground steel particles inside the tube. Clearly, the NUOVINOX material would not have the properties that are disclosed by Kazuya as being necessary to carry out the function of preventing damage from lightning. Therefore, Kazuya would teach away from using NUOVINOX. The MPEP mandates that “the references must be considered as a whole,” and,

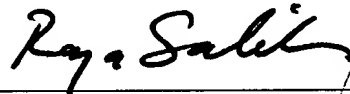
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therefore, requires the Examiner to consider and confront those passages of Kazuya that lead away from the claimed invention See, also, In re Hedges, 228 USPQ 685, 687 (Fed. Cir. 1986) (describing how prior art references may "teach away" from a claimed invention, and concluding that teaching away provides "strong evidence of unobviousness").

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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